

Title (en)  
MODULATION ORDER ADAPTATION FOR PARTIAL SUBFRAMES

Title (de)  
MODULATIONSANPASSUNG FÜR PARTIELLE UNTERRAHMEN

Title (fr)  
ADAPTATION D'UN ORDRE DE MODULATION POUR DES SOUS-TRAMES PARTIELLES

Publication  
**EP 3131225 B1 20190313 (EN)**

Application  
**EP 15181139 A 20150814**

Priority  
EP 15181139 A 20150814

Abstract (en)  
[origin: EP3131225A1] The present disclosure relates to transmitting transport blocks in subframes of a predefined length within a wireless communication system. A downlink control information including a resource grant comprising a predetermined modulation and a predetermined transport block size is received (user equipment is the transmitter) or generated (base station is the transmitter). Then transport block including channel coded data to be transmitted in a subframe with the predetermined modulation and the predetermined transport block size is generated. Sensing is performed in the subframes and based thereon, it is determined whether a partial subframe or a complete subframe is available for transmission of the generated transport block. Finally, the transport block is transmitted with a modified modulation different from the predetermined modulation if the partial rather than complete subframe is available. Correspondingly, at the receiver, the grant is received (user equipment is receiver) or generated (base station is the receiver), the size of the subframe in which the reception is expected is determined and then the transport block is received with a modified modulation if only the partial subframe is available.

IPC 8 full level  
**H04L 5/00** (2006.01); **H04L 1/16** (2006.01); **H04L 1/18** (2006.01); **H04L 27/00** (2006.01)

CPC (source: CN EP KR RU US)  
**H04L 1/00** (2013.01 - EP US); **H04L 1/0003** (2013.01 - CN EP KR RU US); **H04L 1/0038** (2013.01 - CN EP RU US);  
**H04L 1/0068** (2013.01 - CN EP KR US); **H04L 1/1671** (2013.01 - CN EP KR US); **H04L 1/1819** (2013.01 - CN EP KR US);  
**H04L 5/001** (2013.01 - US); **H04L 5/0044** (2013.01 - CN EP US); **H04L 5/0046** (2013.01 - CN EP KR US); **H04L 5/0053** (2013.01 - CN EP US);  
**H04L 5/0078** (2013.01 - US); **H04L 5/0094** (2013.01 - CN EP KR US); **H04L 5/0096** (2013.01 - CN EP KR US);  
**H04L 27/0006** (2013.01 - CN EP US); **H04L 27/0008** (2013.01 - US); **H04W 28/04** (2013.01 - US); **H04W 28/06** (2013.01 - US);  
**H04W 72/23** (2023.01 - US); **H04W 72/231** (2023.01 - US); **H04W 72/232** (2023.01 - US); **H04L 5/001** (2013.01 - EP);  
**H04L 5/0078** (2013.01 - EP); **H04W 84/02** (2013.01 - US); **H04W 88/02** (2013.01 - US); **H04W 88/08** (2013.01 - US); **H04W 92/02** (2013.01 - US);  
**H04W 92/10** (2013.01 - US)

Citation (examination)  
WO 2016185945 A1 20161124 - KYOCERA CORP [JP]

Cited by  
US11089585B2; EP3425950A4; EP4178148A1; CN111937334A; EP4213423A1; US10506580B2; US11569930B2; US11399309B2;  
US11184924B2; WO2019194928A1; WO2018203818A1; WO2020039388A1; WO2020066606A3; US11711844B2; US2018323902A1;  
CN110447287A; CN110574315A; CN110679108A; EP3618333A4; EP4224967A1; US10797846B2; US10009832B1; US10681620B2;  
US11277786B2; TWI790359B; US11705981B2; WO2018173005A1; WO2018204852A1; US10938504B2; US11064522B2; US11172505B2;  
US11343808B2; US11711846B2; US11729826B2; TWI753160B; EP3603261B1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3131225 A1 20170215**; **EP 3131225 B1 20190313**; CA 2995519 A1 20170223; CA 2995519 C 20231003; CN 108141335 A 20180608;  
CN 108141335 B 20210219; CN 112865923 A 20210528; CO 2018001382 A2 20180510; EP 3487112 A1 20190522; EP 3487112 B1 20210127;  
EP 3806378 A1 20210414; JP 2018526895 A 20180913; JP 2021158695 A 20211007; JP 6913895 B2 20210804; JP 7266184 B2 20230428;  
KR 20180039642 A 20180418; MX 2018001839 A 20180906; MY 188835 A 20220107; RU 2018105179 A 20190916;  
RU 2018105179 A3 20191206; RU 2020103390 A 20200319; RU 2020103390 A3 20200529; RU 2713648 C2 20200206;  
RU 2734654 C2 20201021; US 10547410 B2 20200128; US 11063688 B2 20210713; US 2018241499 A1 20180823;  
US 2020059316 A1 20200220; US 2021288745 A1 20210916; WO 2017029192 A1 20170223

DOCDB simple family (application)  
**EP 15181139 A 20150814**; CA 2995519 A 20160811; CN 201680056317 A 20160811; CN 202110080812 A 20160811;  
CO 2018001382 A 20180212; EP 18212864 A 20150814; EP 2016069152 W 20160811; EP 20210947 A 20150814; JP 2018505675 A 20160811;  
JP 2021107752 A 20210629; KR 20187004339 A 20160811; MX 2018001839 A 20160811; MY PI2018700328 A 20160811;  
RU 2018105179 A 20160811; RU 2020103390 A 20160811; US 201615752882 A 20160811; US 201916661690 A 20191023;  
US 202117332671 A 20210527